

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) A balloon catheter comprising:

a catheter body comprising an outer tubular member having an outer tubular wall and having a lumen extending throughout the length of the outer tubular member, said outer tubular member further having a proximal end and a distal end;

said catheter body further including an inner tubular member having a proximal end, a distal end, and a guidewire lumen extending therethrough, said inner tubular member being disposed through said lumen of the outer tubular member to form a an inflation lumen between the outer tubular member and the inner tubular member;

an inflatable balloon having a main body portion, a proximal portion, and a distal portion, said proximal portion and said distal portion extending from said main body portion, said distal portion of the balloon being bonded to the inner tubular member and said proximal portion of the balloon being bonded to the outer tubular member, said inflatable balloon being formed from a gas-permeable material;

a coupling member having an inflation port and a guidewire port, a lumen ~~extending therethrough~~, said coupling member being mounted on the proximal end of the outer tubular member and the lumen guidewire port of the coupling member communicating with the guidewire lumen and the inflation port of the coupling member communicating with the lumen between the outer tubular member and the inner tubular member; and

~~a syringe coupled to said coupling member for applying a liquid within the lumen of the outer tubular member; and,~~

at least one vent aperture for purging air from said lumen of the catheter body, said aperture extending radially through said outer tubular wall of the outer tubular member at a location proximal of the proximal portion of the inflatable balloon.

2. (Original) A balloon catheter as defined in claim 1, wherein said aperture is circular and has a diameter between approximately .0005 inches and .0014 inches.

3. (Original) A balloon catheter as defined in claim 2, wherein said aperture is circulate and has a diameter of approximately 0.0010 inches.

4. (Previously Presented) A balloon catheter as defined in Claim 2, wherein said vent aperture is of a size to permit the flow of air through the aperture while restricting the flow of liquid through the aperture.

5. (Original) A balloon catheter as defined in claim 4, wherein said inflatable balloon is placed within a protective tube thereby restricting the ability of the balloon to inflate.

6. (Currently Amended) A balloon catheter comprising:
a catheter body including an outer tubular member having an outer tubular wall and having a lumen extending throughout the length of the outer tubular member, said outer tubular member further having a proximal end and a distal end;

said catheter body further including an inner tubular member having a proximal end, a distal end, and a guidewire lumen extending therethrough, said inner tubular member being disposed coaxially through said lumen of the outer tubular member to

form a an inflation lumen between the outer tubular member and the inner tubular member;

an inflatable balloon having a main body portion, a proximal portion, and a distal portion, said proximal portion and said distal portion extending from said main body portion, said proximal portion of the balloon being bonded to the outer tubular member and the distal portion of the balloon being bonded to the inner tubular member, said inflatable balloon being formed from a gas-permeable material;

a coupling member having an inflation port and a guidewire port, a lumen ~~extending therethrough~~, said coupling member being mounted on the proximal end of the outer tubular member and the lumen guidewire port of the coupling member communicating with the guidewire lumen and the inflation port of the coupling member communicating with the lumen between the outer tubular member and the inner tubular member; and

~~a syringe coupled to said coupling member for applying a liquid within the lumen of the outer tubular member; and~~

at least one vent aperture for purging air from said lumen of the catheter body, said aperture extending radially through said outer tubular wall of the outer tubular member at a location proximal of the proximal end of the inflatable balloon.

7. (Original) A balloon catheter as defined in claim 6, wherein said aperture is circular and has a diameter between approximately .0005 inches and .0014 inches.

8. (Original) A balloon catheter as defined in claim 7, wherein said aperture is circular and has a diameter of approximately 0.0010 inches.

9. (Previously Presented) A balloon catheter as defined in Claim 7, wherein said vent aperture is of a size to permit the flow of air through the aperture while restricting the flow of a liquid through the aperture.

10. (Original) A balloon catheter as defined in claim 9, wherein said inflatable balloon is placed within a protective tube thereby restricting the ability of the balloon to inflate.

11. (Currently Amended) A balloon catheter comprising:

a catheter body comprising an outer tubular member having an outer tubular wall and having a lumen extending throughout the length of the outer tubular member, said outer tubular member further having a proximal end and a distal end;

said catheter body further including an inner tubular member having a proximal end, a distal end, and a guidewire lumen extending therethrough, said inner tubular member being disposed through said lumen of the outer tubular member to form a an inflation lumen between the outer tubular member and the inner tubular member;

an inflatable balloon having a main body portion, a proximal portion, and a distal portion, said proximal portion and said distal portion extending from said main body portion, said distal portion of the balloon being bonded to the inner tubular member and said proximal portion of the balloon being bonded to the outer tubular member;

a coupling member having an inflation port and a guidewire port, a lumen extending therethrough, said coupling member being mounted on the proximal end of the outer tubular member and the lumen guidewire port of the coupling member communicating with the guidewire lumen and the inflation port of the coupling member

communicating with the lumen between the outer tubular member and the inner tubular member; and

at least one vent aperture for purging air from said lumen of the catheter body, said aperture extending radially through said outer wall of the outer tubular member at a location proximal of the proximal portion of the inflatable balloon.

12. (Original) A balloon catheter as defined in claim 11, wherein said aperture is circular and has diameter between approximately .0005 inches and .0014 inches.

13. (Original) A balloon catheter as defined in claim 12, wherein said aperture is circular and has a diameter of approximately 0.0010 inches.

14. (Previously Presented) A balloon catheter as defined in Claim 12, wherein said liquid applied within the lumen of the outer tubular member exerts a fluid pressure between about 20 psi and 45 psi and thereby causes air to pass through the vent aperture.

15. (Original) A balloon catheter as defined in claim 14, wherein said inflatable balloon is placed within a protective tube thereby restricting the ability of the balloon to inflate.

16. (Original) A balloon catheter as defined in claim 15, wherein said inflatable balloon is formed of gas-permeable materials.

17. (Withdrawn) A method of purging air from a balloon catheter which includes a tubular member having a tubular wall and proximal and distal ends; an inflatable balloon having a main body portion and proximal and distal portions extending from said main body portion, said proximal and distal portions each being attached to the tubular member; a syringe coupled to the tubular member for applying a liquid within

a lumen of the tubular member, a purge aperture extending through the wall of the tubular member at a point proximal to the proximal portion of the inflatable balloon; wherein the method includes the steps of:

placing the inflatable balloon within a protective tube to restrict the inflation of the balloon;

injecting liquid into the lumen of the tubular member thereby forcing air to be evacuated from the balloon catheter through the purge aperture;

removing the protective tube'

inflating the balloon;

allowing any air remaining within the balloon to diffuse through the inflated balloon; and

submerging the balloon in liquid while deflating the balloon to prevent air from re-entering the tubular member.